

# **BRAVO 21 BBC Belt Replacement**

# **SERVICE TIPS**

# **DIFFICULTY LEVEL - 4**

# Updated: 01/2011

20 to 30 Min

Before working - always follow all instructions and warnings described in the Operator's Manuals for this mower.

## NOTICE:

If you are unsure of how to use these instructions please contact us by e-mail: service@ybravo.com

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or by phone: 1.888.ybravo.1 (1.888.927.2861)

Tools needed:

- 1 pcs Screw driver
- 1 pcs 10mm wrench or 10mm socket
- 1 pcs 13mm wrench or 13mm socket



#### STEP 1

Install the plastic Piston Stop (201107-1) from the Ybravo Tool Kit included with the new mower. Hand tighten the piston stop using the Honda spark plug wrench.



#### NOTE:

Never use a powered impact wrench when working on the engine with a piston stop installed. This will cause serious damage to the engine.

### **STEP 2**

Remove the 13mm nut and the 10mm hex screw for the belt quard as illustrated.



Pull the shift lever towards the "LO" speed setting of the transmission. Lift up on the shift lever at the same time as lifting the cover. The cover slides off towards the right side.



# STEP 3

Place the mower on its Right Side. Remove the blade and the plastic cover.



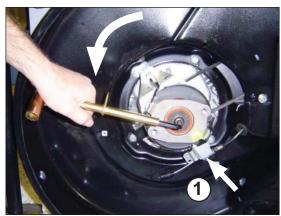
#### STEP 4

Use the Ybravo Combination Wrench (201109-1) to unhook the spring for the clutch as illustrated.



### **STEP 5**

Use the 8mm Allen Wrench (201108-1) together with the combination wrench to loosen the screw turning it Counter Clockwise. Do not remove BBC cable clamp (1).



Step 6 Remove the clutch from the crankshaft.



#### STEP 7

Remove the belt. Note the positions of the belt guide. Proper distance between the guide and pulley is approx. 3/16" (5mm).

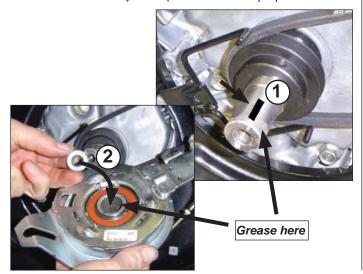


#### ASSEMBLY Step 8

Before installing the clutch on the crankshaft carefully inspect and make sure that the key is properly in place (1).

- Make sure that the spacer (2) is properly placed in the hub. - Apply grease to the inside of the clutch hub as well as to the crankshaft before installation of the clutch.

- When sliding the clutch on to the crankshaft it is ESSENTIAL to make sure that the key is not pushed out of its proper location.



### Step 9

To attain the proper torque on the specialty screw that holds the clutch in place, carefully follow these simple steps. **If unsure of this procedure always use a Torque Wrench.** Proper torque on the screw is 50 Ft-Lb (65 Nm).



1. Use the Allen Wrench as illustrated - Tighten the screw as much as possible with your hand. The screw will turn with difficulty for a few turns and come to a distinct stop. This process compresses the spring on the lower clutch part.



 Install the Allen wrench with the short end into the screw and extend it with the combination wrench.
Tighten the screw by turning the wrench 90 degrees.

This tightening angle is equivalent to 50 Ft-Lb in this application.

### STEP 10

Install the BBC tension spring (4). Verify that the stretch of the BBC cable spring is correct before installing the plastic cover and the blade. See Tech Tip: **BBC Cable Adjustment** for a complete cable

installation instruction if necessary.

